

## West Virginia Water Quality Project

## Diamond of the East Potomac Headwaters

**Location:** WV Potomac Headwaters Watershed

**Category:** Partnerships for Conservation Action

### The Resource Challenge

The Potomac River flows from the mountains of West Virginia (WV) to the Chesapeake Bay. More than three quarters of the watershed land is privately owned.

Water quality concerns included:

- Algal blooms on high gradient streams.
- Episodic high fecal bacteria counts.
- Anticipated impacts from expansive growth of poultry farms, production tripled in past 20 years.
- Limited land availability for nutrient application.
- Unlabeled pesticides and storage issues.
- Extensive acreage of soils with excessive phosphorus levels

The challenge was surface water protection and water quality improvement

### Key Participants

- Natural Resources Conservation Service (NRCS)
- Environmental Protection Agency (EPA)
- West Virginia Department of Agriculture (WVDA)
- West Virginia Conservation Agency (WVCA)
- West Virginia Office of Water Resources
- Potomac Valley Conservation District
- West Virginia University (WVU) Extension
- Landowners
- Integrated poultry industry companies

#### *Key innovation:*

*Roofed livestock feeding areas and manure stackers kept overhead water from detaching pollutants and carrying them to the water body. Comprehensive nutrient management plans help balance nutrient needs and availability.*



Manure storage facilities allow WV farmers to spread the 160,000+ tons of poultry litter generated annually when conditions are right for nutrient use by crops.

### Results and Accomplishments

Partnerships between federal, state, and local governments resulted in over \$14,000,000 in water quality improvement practices on over 300 agricultural operations in the headwater West Virginia counties of Pendleton, Grant, Hardy, Hampshire, and Mineral.

The goal to manage agricultural related pollutants through voluntary landowner practice implementation was reached using both corrective and preventative projects including:

- Nutrient Management Plans
- Litter and manure storage structures
- Relocation of livestock feeding areas
- Buffers
- Distribution and marketing of litter
- Phosphorous index
- Follow-up
- Nutrient Management Planner Certification

The reduction of in-stream measured fecal bacteria and nitrates resulted in the de-listing of impaired streams under the Clean Water Act. Farmers and communities are using sound conservation practices to recycle nutrients, preserve clean water, and protect open space and wildlife habitat.

#### For more information, contact:

Ronald L. Hilliard  
WV State Conservationist  
75 High Street, Room 301  
Morgantown, WV 26505  
Phone: 304-284-7540  
E-mail: ron.hilliard@wv.usda.gov

Patrick Bowen  
Assistant State Conservationist  
Rt. 4, Box 503  
Philippi, WV 26416  
Phone: 304-457-4516 ext 105  
E-mail: patrick.bowen@wv.usda.gov



USDA  
Natural Resources Conservation Service  
West Virginia